REMARKS/ARGUMENTS

This Amendment is submitted in response to the Office Action mailed July 2, 2003. At that time claims 1-24 were pending in the application. In the Office Action, the Examiner rejected claims 1, 2, 4-7 and 9 under 35 U.S.C. §102(b) as being anticipated by the article written by Chen et al. (hereinafter "Chen"). Claims 3, 10, 12-21, 23, and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of U.S. Patent No. 4,892,383 to Klainer et al. (hereinafter "Klainer"). Claim 22 was rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Klainer and further in view of U.S. Patent No. 6,024,923 to Melendez et al. (hereinafter "Melendez"). Claims 8 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Melendez.

By this amendment, claims 1 and 12 have been amended. New claims 25-29 have been submitted. No new matter has been added. Support for new claims 25-29 can be found in the specification, page 7, line 20 to page 8, line 20; page 10, lines 1-7; page 12, line 21 to page 13, line 3; and page 18, line 13 to page 19, line 2. Accordingly, claims 1-29 are presented for reconsideration by the Examiner.

REJECTION OF CLAIMS 1, 2, 4-7, AND 9 UNDER 35 U.S.C. §102(b)

The Examiner rejected claims 1, 2, 4-7, and 9 under 35 U.S.C. §102(b) as being anticipated by Chen. *See* Office Action page 2. The Applicants respectfully traverse this rejection.

It is well settled that a claim is anticipated under 35 U.S.C. § 102(b) only if "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." MPEP §2131, citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). As a result of this paper, claims 1, 2, 4-7, and 9 include the limitation that the device detects neutral volatile chemical reagents. Such a limitation is not taught or disclosed by Chen. Support for the

limitation can be found in the specification of the present application, page 8, lines 5-18, and page 12, lines 3-20.

Chen discloses the quenching constant of methyl viologen (MV^{2+}) to poly(2,5-methoxy-propyloxysulfonate phenylene vinylene) (MPS-PPV) as a function of the concentration of the surfactant dedecyltrimethylammonium bromide (DTA). *See* Figure 3; page 3, third full paragraph. MPS-PPV is not a neutral molecule, but is an anionic polymer (*See* page 1, second full paragraph). Chen does not disclose detection for a neutral electron acceptor molecule using a polymer-surfactant complex. Consequently, Chen does not disclose each and every limitation, and as such, Chen does not anticipate these claims under §102(b) because the anticipation definition is not met. Withdrawal of this rejection is respectfully requested.

REJECTION OF CLAIMS 3, 10, 12-21, 23, AND 24 UNDER 35 U.S.C. §103(a)

The Examiner rejected claims 3, 10, 12-21, 23, and 24 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Klainer. *See* Office Action page 3. The Applicants respectfully traverse this rejection.

According to MPEP §2143.03, to establish a *prima facie* case of obviousness, "all of the claim limitations must be taught or suggested by the prior art." (citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (C.C.P.A. 1974)). "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP §2143.03 citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). As a result of this paper, claims 3, 10, 12-21, 23, and 24 include the limitation that the device detects neutral volatile chemical reagents. This limitation is not taught or disclosed by either Chen or Klainer. As noted above, Chen does not teach detection of neutral electron acceptor molecules. Klainer discloses a fiber optic chemical sensor for reservoirs. *See* column 1, lines 6-7. Klainer also does not teach detection of neutral or ionic volatile chemical reagents. Therefore, the combination of Chen and Klainer does not render these claims *prima facie* obvious under §103(a).

Furthermore, claims 13-18, 23, and 24 as originally filed include the limitation of a thin film polymer-surfactant complex in the detection device. Chen does not teach the use of the MPS-PPV/DTA complex as a film in detecting MV^{2+}. Rather, Chen discloses the use of *aqueous*

MPS-PPV/DTA. *See e.g.*, page 2, first full paragraph; caption to Figure 1. Since the limitation of using a polymer-surfactant complex film is not taught or disclosed by either Chen or Klainer, the combination of Chen and Klainer does not render these claims *prima facie* obvious under §103(a). Withdrawal of this rejection is respectfully requested.

REJECTION OF CLAIM 22 UNDER 35 U.S.C §103(a)

The Examiner rejected claim 22 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Klainer and further in view of Melendez. *See* Office Action page 4. The Applicants respectfully traverse this rejection.

As noted above, a *prima facie* case of obviousness under §103(a) is not established unless all of the claim limitations are taught or suggested by the prior art. *See* MPEP §2143.03. Claim 22 includes the limitation that the device detects neutral volatile chemical reagents. As noted above, this limitation is not taught or disclosed by either Chen or Klainer. As noted by the Examiner, Melendez teaches a remote wireless transmission of a signal from an optical sensor. *See* Office Action page 4. Melendez does not teach detection of neutral or ionic volatile chemical reagents with a polymer-surfactant complex. Melendez's disclosure does not remedy the problems associated with combining Chen and Klainer. Since this limitation is not taught or disclosed by either Chen, Klainer, or Melendez, the combination of Chen, Klainer, and Melendez does not render these claims *prima facie* obvious under §103(a). Withdrawal of this rejection is respectfully requested.

REJECTION OF CLAIMS 8 AND 11 UNDER 35 U.S.C. §103(a)

The Examiner rejected claims 8 and 11 under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Melendez. *See* Office Action page 4. The Applicants respectfully traverse this rejection.

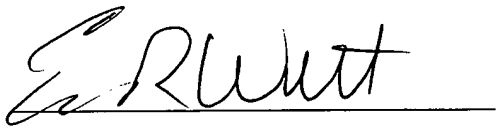
Prima facie obviousness under §103(a) is not established unless all the claim limitations are taught or suggested by the prior art. *See* MPEP §2143.03. Claims 8 and 11 include the limitation that the device detects neutral volatile chemical reagents. As noted above, this limitation is not taught or disclosed by either Chen or Melendez. Therefore, the combination of

Chen and Melendez does not render these claims *prima facie* obvious under §103(a). Withdrawal of this rejection is respectfully requested.

CONCLUSION

Applicant respectfully asserts that claims 1-29 are patentably distinct from the cited references, and requests that a timely Notice of Allowance be issued in this case. If there are any remaining issues preventing allowance of the pending claims that may be clarified by telephone, the Examiner is requested to call the undersigned.

Respectfully submitted,



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